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| Name: | Class: | Date: |

**Probability**

When the materials used in a probability experiment have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, you can still use tables and trees to represent the information, but you must make sure to add a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for all the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Example: A spinner with 2 As, 1 B, and 2 Cs is spun and a four sided die is rolled

|  |  |
| --- | --- |
| Spinner | 4-sided Die |
| 1 | 2 | 3 | 4 |
| A |  |  |  |  |
| A |  |  |  |  |
| B |  |  |  |  |
| C |  |  |  |  |
| C |  |  |  |  |

Fill in the chart and calculate the following, (express answers as fractions and percents):

1. P(C, 1) =
2. P(B, even number) =
3. P(A or C, 4) ­=
4. P(A or B, 2) =

**Simultaneous independent events:**

When calculating the probability of two or more independent events happening at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, simply find the probability of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and then \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the probabilities together.

Example: Calculate the probability of rolling the same number on a pair of 6-sided die

**Practice**:

1. You have a bag filled with 4 purple, 1 blue, and 3 green marbles and a spinner with four sections labelled cat, dog, frog, and mouse.
2. Organize the outcomes in a table or tree
3. Calculate and express as a fraction and a percent:
* P(green, frog)
* P(purple, mammal)
1. You have two 6-sided die. Calculate the probability of :
2. rolling a 6 with one die, and an even number on the second die
3. rolling two odd numbers